



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.            |
|---|-------------|----------------------|---------------------------------|-----------------------------|
| 10/710,663  | 07/27/2004  | Bin-Juine Huang      | 12262-US-PA                     | 4662                        |
| 31561 7590 09/20/2007<br>JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE<br>7 FLOOR-1, NO. 100<br>ROOSEVELT ROAD, SECTION 2<br>TAIPEI, 100<br>TAIWAN |             |                      | EXAMINER<br>DUONG, THO V        |                             |
|   |             |                      | ART UNIT<br>3744                | PAPER NUMBER                |
|   |             |                      | NOTIFICATION DATE<br>09/20/2007 | DELIVERY MODE<br>ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USA@JCIPGROUP.COM.TW

## Office Action Summary

Application No.

10/710,663

Applicant(s)

HUANG ET AL.

Examiner

Tho v. Duong

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/3/07 has been entered.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,4,5,6 and 7 rejected under 35 U.S.C. 102(b) as being anticipated by Kroliczek et al. (US 6,382,309). Kroliczek discloses (figures 10 and 13) a heat transfer device comprising an evaporator comprising a first hollow tube (314); a porous core (312) mortised inside the first hollow tube; a second hollow tube (322), wherein a part of the first hollow part (left end) is mortised and secured inside the second hollow tube, and the other part of the first hollow tube is exposed outside of the hollow tube; a connecting pipe (400) connected to the evaporator; a condenser (410) on the connecting pipe; the porous core has a fluid channel therein being connected to a fluid reservoir; a vapor channel (316) between the first hollow tube (314) and the porous core, being connected to the connecting pipe; the first hollow tube has a closed end (340) having a first surface, the first surface having a first hole to connect with the connecting pipe

Art Unit: 3744

(400); a second hollow tube (322) has a closed end, the closed end having a second surface, the second surface having a second hole being connected with the connecting pipe.

Claims 1,4,5,6 and 7 rejected under 35 U.S.C. 102(b) as being anticipated by Van Oost (US 5,944,092). Van Oost discloses (figures 1 and 3b) a heat transfer device comprising an evaporator comprising a first hollow tube (2); a porous core (18) mortised inside the first hollow tube; a second hollow tube (13), wherein a part of the first hollow part is mortised and secured inside the second hollow tube, and the other part of the first hollow tube (right end) is exposed outside of the hollow tube; a connecting pipe fluidly connected to the evaporator; a condenser (9) on the connecting pipe; the porous core (18) has a fluid channel (4) therein being connected to a fluid reservoir; a vapor channel between the first hollow tube and the porous core, being connected to the connecting pipe; the first hollow tube has a closed end (right end) having a first surface, the first surface having a first hole to fluidly connect with the connecting pipe; a second hollow tube (13) has a closed end, the closed end having a second surface, the second surface having a second hole being fluidly connected with the connecting pipe.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kroliczek in view of T. D. Coe (US 3,387,653). Kroliczek does not disclose a heat conductor of

Art Unit: 3744

first and second conducting block covering the evaporator and being on the heating device. Coe discloses (figures 3-4 and column 4, lines 8-14) a heat transfer device that has a heat conductor comprises a first heat conducting block (22) having a heat conducting tenon (26,27), a second heat conducting block (24) having mortise (31,32) for the insertion of the tenon; the first block and second block are put together to cover the tube (21) for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Coe's teaching in Kroliczek's device for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith.

Claims 2-3 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oost in view of T. D. Coe (US 3,387,653). Oost does not disclose a heat conductor of first and second conducting block covering the evaporator and being on the heating device. Coe discloses (figures 3-4 and column 4, lines 8-14) a heat transfer device that has a heat conductor comprises a first heat conducting block (22) having a heat conducting tenon (26,27), a second heat conducting block (24) having mortise (31,32) for the insertion of the tenon; the first block and second block are put together to cover the tube (21) for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use Coe's teaching in Oost's device for a purpose of allowing semiconductor devices to be cooled, affixed on the heat transfer device in good thermal contact therewith.

### *Conclusion*

Art Unit: 3744

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

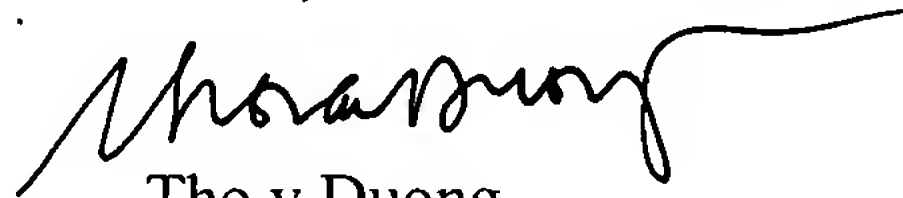
Kroliczek et al. (US 2002/0007937) discloses a phase control in the capillary evaporator.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho v. Duong whose telephone number is 571-272-4793. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tyler J. Cheryl can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TD

  
Tho v Duong  
Primary Examiner  
Art Unit 3744

TD  
September 13, 2007